Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, DC 20054

In the Matter of	)	
	)	
Spectrum Policy Task Force on	)	
Issues related to Commission's	)	**ET Docket No. 02-135**
Spectrum Policies	)	

COMMENTS OF CANTOR FITZGERALD TELECOM SERVICES, LLC

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Table of Contents

Summary

Cantor Fitzgerald Telecom Services, LLC ("Cantor Telecom") applauds the Commission's quest to create policies intended to encourage the efficient use of wireless spectrum. Cantor Telecom strongly supports market-oriented methods for facilitating a secondary spectrum market. Market forces provide the most efficient means for providing updated information concerning available spectrum and wireless capacity and introducing spectrum licensees to potential lessees and purchasers. By facilitating leases, exchanges, and sales of a scarce resource, the Commission will ensure that spectrum is utilized for the maximum public benefit. Cantor Telecom therefore urges the Commission to expeditiously establish parameters for a vibrant secondary spectrum market.

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Cantor Fitzgerald Telecom Services, LLC ("Cantor Telecom") hereby submits these Comments in response to the Commission's June 6, 2002 Public Notice ("Notice") in the above-referenced docket. Cantor Telecom applauds the Commission's efforts to conduct a systematic evaluation of its existing spectrum policies. While all of the Commission's inquiry is important, Cantor Telecom will focus in these comments on the first set of questions posed in the Notice – those dealing with the potential for developing "Market-Oriented Allocation and Assignment Policies." Cantor Telecom believes that the development of such market-oriented policies is a vital step toward assuring that spectrum resources will flow to their highest and best use in the future. In this regard, Cantor Telecom also urges the Commission to move forward expeditiously in its pending rulemaking, *In the Matter of Promoting Efficient Use of Spectrum Through Elimination of Barriers to the Development of Secondary Markets*, WT Docket No. 00-230, to establish rules allowing for the functioning of a flexible secondary market in wireless spectrum.

I. DESCRIPTION OF CANTOR TELECOM

Cantor Telecom is a subsidiary of Cantor Fitzgerald, L.P. ("Cantor Fitzgerald"). For over 55 years, Cantor Fitzgerald has been a market leader in the most efficient and cost effective trading. In 1972, Cantor Fitzgerald revolutionized the U.S. Treasury market by introducing the

world's first screen-based brokerage market in U.S. government securities with real-time, active prices on computer screens. Today, Cantor Fitzgerald is the leading broker-dealer in U.S. government bonds and notes and is a major participant in U.S. agency bonds, mortgage backed securities, European and Asian government bonds, corporates, Eurobonds, U.S. municipals, repos, swaps and options, and all other major fixed income and credit market securities. The Cantor group of companies currently has more than 1,000 employees in offices throughout the U.S., Canada, Europe and Asia. For more information, see http://www.cantor.com/.

Cantor Fitzgerald is a majority owner in eSpeed, a publicly traded company. eSpeed enables market participants to transact business online instantaneously, more effectively and at a lower cost than traditional trading methods. eSpeed's electronic marketplaces today permit users to conduct trades in such products as bonds, bandwidth, futures, energy, telephone minutes and natural gas. eSpeed's platform can readily be adapted for trading in other telecommunications products, including wireless spectrum. It is also highly scalable, lending itself equally well to markets with small numbers of transaction as to markets with enormous trading volume. For more information, see http://www.espeed.com/.

Cantor Fitzgerald's subsidiary Cantor Telecom brokers telecommunications infrastructure and services, including dark fiber, collocation, conduit, and lit fiber. Cantor Telecom is one of the industry leaders in these areas in the United States.

Cantor Telecom's experience shows that it is possible to create a trading market in the communications sector, allowing buyers and sellers to find each other quickly. Provided that certain minimal conditions are met, the market can work efficiently and effectively to facilitate the allocation of resources to their highest and best use. Intermediaries such as Cantor Telecom

enable these markets to work more efficiently by providing a central location for buyers and sellers to find each other and to do business on the basis of standardized terms and conditions.

II. DISCUSSION

A. The Potential for a Working, Efficient Secondary Market Is Great If the Right Preconditions Are Met.

As it has done in a recent *ex parte* submission in WT Docket No. 00-230, Cantor Telecom submits that an effective secondary market in wireless spectrum is very attainable if the FCC exercises as much regulatory restraint as possible, consistent with statutory requirements. Cantor Fitzgerald's and Cantor Telecom's experience shows that it is quite possible to make markets in a variety of products, allowing buyers and sellers to find each other quickly and easily. Provided that certain minimal conditions are met, as described below, the market can work efficiently and effectively to facilitate the allocation of resources to their highest and best use. To the extent that the use of spectrum today is characterized by shortages in some areas and surpluses in others, as the record in WT Docket No. 00-230 strongly suggests, the establishment of such a market would go far to alleviate this imbalance.

Cantor Telecom observes that the industry is developing new equipment that can be easily re-tuned to take advantage of unused spectrum on a short-term basis, thereby allowing lessees of spectrum in a secondary market to use the leased spectrum at lower cost and with greater speed and flexibility. *See generally* Comments of Vanu, Inc., WT Docket No. 00-230, February 9, 2001, at 3-4; Comments of Software Defined Radio ("SDR") Forum, WT Docket No. 00-230, February 9, 2001, at 2-4.

The European Commission has also recognized these marketplace developments, having recently published a new Policy Paper acknowledging that "secondary spectrum trading has an

important role to play in shaping . . . the future 3G [Third Generation Wireless] sector." It has also begun a dialogue with industry and national regulators on this issue.

Intermediaries such as Cantor Telecom can make these markets work more efficiently by making it easy to match up buyers and sellers. A party with excess capacity need make only one call, or one electronic posting, to be assured that a broad range of potential purchasers is made aware of the availability of the capacity. At the same time, a party in need of capacity can go to one place to look for it. This clearinghouse function obviously considerably reduces the transaction costs to both buyer and seller, and makes both short- and long-term transactions possible. Intermediaries such as Cantor Telecom can also make these markets work more efficiently by reducing transaction costs associated with negotiating individual contracts, allowing the parties to do business on the basis of standardized terms and conditions.

Finally, brokers and other intermediaries can provide transparency to the marketplace by acting as repositories of information as to the supply of and demand for products. In this respect, they can be helpful to the Commission in understanding how well the market is functioning.

B. Responses to Specific Issues in Public Notice.

In response to some of the specific questions posed in the Commission's Public Notice in this proceeding, Cantor Telecom believes generally that the Commission should be guided by the principle that the market will best be served if secondary leasing arrangements are permitted with maximum flexibility. This general principle provides answers to a number of the questions raised in the Public Notice.

1. Question 2: Should current, restrictive service and operating rules applicable in many bands be changed to provide licensees with greater flexibility? If so, in which bands and how?

a. Question 2.a: Should incumbent users be given flexibility within their existing spectrum?

The record in WT Docket No. 00-230 shows that many of the inefficiencies present in the spectrum allocation process today stem from the inflexibility of the current methodology used for allocating spectrum and defining user rights. For the most part, today's methodology allocates blocks of spectrum of a fixed size, in a fixed geographic area, for a fixed time, for specified uses. In the real marketplace, however, portions of these discrete blocks may not be usable by a licensee for some period of time. For example, a licensee may not need or wish to cover all of its geographic area during the early stages of its business plan. Traditionally, the potential for use of this spectrum in such areas and during such times would be wasted.

The market-oriented mechanisms the Notice contemplates could go a long way toward reducing or eliminating this waste if the licensee is given sufficient flexibility in determining what portion of the asset represented by its license right it can do without, and where and for how long it can do without it. Thus, licensees should be allowed to subdivide their rights, as to duration, geographic scope and quantity of frequency, and to be allowed to determine what portion or portions of their rights, as so subdivided, to lease downstream. This right should be accorded to incumbent licensees as well as new licensees.

Similarly, efficiencies will be increased if trading is facilitated at all points of the facility-construction cycle. Accordingly, licensees should be permitted to convey spectrum use rights alone, rights plus facilities or simple capacity. In addition, more than one round of trades may be needed to allow the market to seek out the best allocation of an asset. Therefore, sublessors should be allowed the same flexibility as lessors in regard to how to sublease spectrum, both as

to how to subdivide it and in what form (spectrum use, facilities plus rights, simple capacity) to sublease it.

One of the key benefits of such flexibility would be that it could allow the emergence of a short-term market, which would satisfy short-term needs for communications capacity with minimum transaction cost and without undue regulatory delays. For example, the sponsors or broadcasters of a major sports event might need a large amount of spectrum, but in a limited geographic area, and only for a few days. Similarly, the general contractor for a large construction project might have radio needs in a circumscribed area for several months. A flexible market would meet these users' needs in a highly efficient manner and allow the productive use of otherwise wasted spectrum.

b. Question 2.b: Should "site" licenses (*e.g.*, broadcasting, private land mobile) be converted to geographic area licenses? If so, how should such licenses be defined (*e.g.*, by power limits at geographic and frequency boundaries)?

In a functioning secondary market, the lessee will often not have access to the same premises as the lessor or may have other sound business reasons for locating transmission equipment in a location other than lessor's premises. For this reason, the secondary market would work best if site licenses are replaced with geographic area licenses, with power limits at geographic and frequency boundaries used to measure and define such licenses.

c. Question 2.e: How would the interference rights of incumbents and new licensees be redefined under flexibility?

Cantor Telecom lauds the Commission for its desire to look at interference rights afresh to see whether they should be changed in furtherance of more market-oriented spectrum allocation mechanisms. Cantor Telecom suspects that this new working out of interference

policies will be a work-in-progress that will shift as new technologies become more available and more powerful.

That being said, the Commission need not wait for these new interference regimes to be fully developed before proceeding with rule changes to allow the development of a secondary market. Under any interference regime, including the present one, a licensee would not be able to grant a lessee greater rights than the licensee itself possesses and conversely would not be able to free the lessee from the licensee's obligations not to interfere with other users. (To be sure, a licensee might well grant the lessee fewer rights than it possesses – for example, it might grant the lessee only the right to use spectrum in a subset of its geographic area.) But the secondary market can handle this limitation and lessees will be able to live with it.

d. Question 2.f: What, if anything, should the Commission do to facilitate efficient restructuring of spectrum held by new licensees and incumbents, *i.e.*, reduce transactions costs, avoid strategic holdouts, and create greater certainty about costs?

There are a number of steps the Commission can take to facilitate efficient restructuring of spectrum held by new licensees and incumbents. One very important step is to adopt rules in WT Docket No. 00-230 that allow for the development of a well-functioning secondary market. In doing so, the Commission should structure its regulatory oversight in a manner that facilitates trading by lowering transaction costs and increasing certainty among lessors and lessees of spectrum as to their rights and obligations.

Cantor Telecom recognizes, of course, the Commission's statutory mandate to manage the spectrum in a manner that furthers the public interest and in particular to establish and enforce standards to prevent harmful interference. However, licensees should be permitted to discharge responsibility for compliance with commission rules in a manner that does not unnecessarily limit the efficiency of the market. If a secondary market is to work effectively,

licensees cannot be expected to micromanage that portion of their spectrum rights which they have leased to downstream users. Cantor Telecom suggests that licensees may be included in the Commission's enforcement process in a manner that recognizes their limited ability to exercise complete dominion over leased spectrum on a real-time basis.

Thus, licensees should be permitted to rely in the first instance on standardized contract provisions binding the lessees of the spectrum to comply with the Commission's regulations, including those dealing with interference protections. In the event a violation by a downstream user is detected, the licensee should be permitted a reasonable opportunity to cure such violations. In addition, because a licensee's ability to seek a remedy under its agreement would depend on the factual question of whether a rule violation is in fact taking place, the Commission should stand ready to quickly resolve disputes regarding rule compliance. This last issue is particularly important because a licensee's attempt to remedy a rule violation may be viewed as a breach of the lease agreement if the lessee does not agree that the rules are in fact being violated.

By contrast, contractual disputes not involving compliance with the Commission's rules should be decided in the same manner as other commercial disputes, not by the Commission. These disputes will typically be purely commercial in nature, and will not involve application of the Commission's specialized expertise. Accordingly, the usual dispute-resolution forums for such disputes – courts or arbitrators – will be well-equipped to handle them. Thus, the Commission need not divert its limited resources into the resolution of such commercial disputes.

The Commission should also expressly recognize that there is a role for market-making intermediaries such as Cantor Telecom. Such intermediaries would have expertise in matching up spectrum (as with other commodities) with lessees who will make the most efficient use

thereof. Such intermediaries may be strictly brokers or run trading floors without taking a leasehold or similar position in the spectrum rights themselves. Because of their purely market-facilitating functions, such intermediaries should not be required to ensure compliance with Commission rules; this responsibility should instead be shared by licensees and the end users of the spectrum.

As mentioned, the Commission should allow lessors to rely in the first instance on standardized contract terms requiring lessees to comply with the Commission's rules. More broadly, the adoption of standardized contracts will also reduce transaction costs by obviating the need to negotiate terms and conditions on a case-by-case basis. However, the Commission need not – indeed should not – dictate all the terms and conditions of these standardized contracts. Many contract terms, such as payment terms and liquidated damages for non-delivery, will be purely commercial in nature and will and should be worked out by market participants.

Finally, Cantor Telecom urges the Commission to review with care its eligibility and use restrictions to determine the extent, if any, to which they remain necessary to protect the public interest. Retention of such requirements significantly narrows the universe of potential lessees for spectrum, thereby reducing the liquidity of a secondary market. Moreover, such requirements would prevent the market from determining whether some other use for fallow spectrum would lead to greater efficiency, or whether a user outside the eligibility class could make a more valuable use of the spectrum. It would therefore make a secondary market far more effective if the Commission would continue to loosen or eliminate use and eligibility restrictions on spectrum to increase the ability of parties to trade freely in it.[1]

[1] In Question 18, the Commission asks: "Do any existing Commission rules inhibit efficient use of the spectrum? If so, how should they be changed?" This part of Cantor Telecom's Comments answers this question as well.

2. **Question 3: Should spectrum policy be different in different portions of the spectrum or in different geographic areas?**

   a. **Question 3.a: [S]hould the more congested region of the spectrum (*i.e.*, that below 3 GHz) be governed by different policies than the less congested portions of the spectrum? Should different licensing concepts be applied to upper millimeter wave spectrum where propagation characteristics limit the range and small wavelengths enable very narrow beams?**

Cantor Telecom takes no position on the technological aspects of this question. It does note, however, that technical differences do not mandate a difference in the way a secondary market would – and should be permitted to – function with regard to different parts of the spectrum. In highly congested regions, there will be few, if any, potential lessors of spectrum. By definition, the secondary market cannot increase congestion in these regions. In less congested regions, of course, there will be more potential lessors and therefore the market will be effective and finding lessees who can make more valuable use of the spectrum.

Similarly, where technical characteristics affect range or enable narrower beams, lessees for which these characteristics either do not matter or are an advantage will be self-selecting. Therefore, there is no need to structure the secondary market differently for different technical characteristics.

   b. **Question 3.b: Should spectrum policies vary by geographic area according to the relative level of spectrum congestion or use? For instance, should the rules be different in urban areas where spectrum is generally in high demand, than in rural areas where the demand for spectrum is typically low, or in the transition areas – where spectrum demand is somewhere between high and low demand regions?**

There is also no need to structure a secondary market differently in geographic areas where there are different levels of demand. Indeed, because the market is itself the best tool for understanding where demand is high and where it is low, any attempt to structure it in advance

based on a "top-down" understanding of demand differences would be completely counterproductive. Moreover, demand is not static but dynamic. As populations shift and as new technology comes into the marketplace, demand changes accordingly. Thus any attempt to structure the market in advance would be doomed to failure.

c. Question 3.c: How can spectrum use, congestion and demand be accurately measured and predicted?

As noted above, a well-functioning secondary market would be a very effective tool – indeed the most effective tool – for measuring demand for spectrum. Private actors in such a marketplace would also in effect be predicting future demand. For example, a licensee with a ten-year license to cover all of greater Los Angeles will be able to make an informed decision as to the demand for the service it wishes to provide in the various parts of that region. Where it does not foresee immediate demand in one part of that region, a secondary market would allow it to lease to another user its rights for a shorter period of time in that part of the region. Such lessee will be induced to lease such spectrum only if it foresees that it will have demand for that spectrum in that region during that limited time (or that it can find a sublessee which will have such demand). This will reduce the amount of spectrum that lies fallow at any given time.

While such predictions will not, of course, be perfect, market participants are likely to be much better positioned than the Commission to make them. The hypothetical greater Los Angeles licensee has an enormous incentive to study that particular market intensively and thereby to have much more comprehensive information on that market than the Commission. Additionally, allowing the licensee to lease spectrum in excess of its needs in a secondary market would give it an incentive not to overestimate demand.

To be sure, the Commission will continue to need to keep abreast of current market conditions and make its own judgments as to future trends. The emergence of a secondary

market, and the information it engenders regarding the dynamic activities of the marketplace, will provide the Commission significant new tools that will help it in this effort.

III. CONCLUSION

Cantor Telecom urges the Commission to maintain its course of searching for market-oriented mechanisms for increasing the efficiency of the use of spectrum. The Commission should not only move forward with the initiatives discussed in the Public Notice, it should also act expeditiously in WT Docket No. 00-230 to adopt rules that facilitate the development of a secondary market in spectrum.

Respectfully submitted,

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